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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
GAMBEL, PHILLIP	

ART UNIT	PAPER NUMBER
1644	

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/043,432	LE ET AL.	
	Examiner	Art Unit	
	Phillip Gambel	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment, filed 11/8/04, has been entered.
Claims 1-8 and 11 have been amended
Claims 12-13 have been canceled.

2. Applicant's election drawn to cachexia associated with cancer for prosecution is acknowledged.

It is noted that the pending claims are limited to treating cachexia associated with cancer.

Therefore, the previous species election has been rendered moot.

3. If applicant desires priority under 35 U.S.C. 120 based upon a previously filed copending application, specific reference to the earlier filed application must be made in the instant application. This should appear as the first sentence of the specification following the title, preferably as a separate paragraph. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No._____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

See United States Patent and Trademark Office OG Notices: 1268 OG 89 (18 March 2003).

4. The application is required to be reviewed and all spelling, TRADEMARKS, and like errors corrected.

Trademarks should be capitalized or accompanied by the ™ or ® symbol wherever they appear and be accompanied by the generic terminology. Although the use of trademarks is permissible in patent applications, the proprietary nature of the trademarks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Appropriate corrections are required

5. Applicant's submission of pending USSNs on the 1449s is acknowledged, however these citations have been crossed out as they are not appropriate for printing on the face of an issued U.S. Patent.

6. It is noted that not all of the priority documents, particularly USSN 07/670,827 were available to the examiner at this time.

It appears that claims 1 and 3-5 have a priority date at least of USSN 07/853,606, filed 3/18/92.

However, the filing date of instant claims 2 and 6-11 are deemed to be the filing date of priority application USSN 08/192,093, filed 2/4/94. It does not appear the priority applications filed previous to 2/4/94 provide sufficient written description for

"as determined by Geysen epitope mapping comprising use of TNF decapeptide pins which overlap at every second amino acid and synthesized on polyethylene pings" and

"wherein said anti-TNF chimeric antibody has epitopic specificity identical to monoclonal antibody cA2".

"wherein said anti-TNF chimeric antibody comprises a non-human variable region comprising an amino acid sequence selected from the group consisting of SEQ ID NOS: 2, 3, 4 and/or 5".

The description of the above-mentioned limitations drawn to "Geysen epitope mapping", "identical epitopic specificity" and SEQ ID NOS: 2, 3, 4 and/or 5 is not readily apparent in priority applications USSNs 07/853,606, 07/943,852, 08/013,413 and 08/010, 406.

If applicant desires priority prior to 2/4/94 for claims 2 and 6-11; applicant is invited to point out and provide documentary support for the priority of the instant claims. Applicant is reminded that such priority for the instant limitations requires written description and enablement under 35 U.S.C. § 112, first paragraph.

Given the number of continuation-in-part applications, applicant is invited to clarify the support under 35 USC 112, first paragraph, for the priority of the instant claims in the lineage of priority documents for establishing the record for clarity.

While applicant's WO 92/16553 publication is applied herein as prior art, it is not clear how WO 92/16553 fits into applicant's priority lineage, if it has been claimed at all. Again, not all priority documents were available to the examiner at this time and the apparent priority of claims 2 and 6-11 is indicated above.

7. Claims 1, 3-5 and 11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention

It is apparent that the cA2 antibody is required to practice the claimed invention. As a required element, it must be known and readily available to the public or obtainable by a repeatable method set forth in the specification. If it is not so obtainable or available, the enablement requirements of 35 USC 112, first paragraph, may be satisfied by a deposit of the cell line / hybridoma which produces this antibody. See 37 CFR 1.801-1.809.

In addition to the conditions under the Budapest Treaty, applicant is required to satisfy that all restrictions imposed by the depositor on the availability to the public of the deposited material will be irrevocably removed upon the granting of a patent in U.S. patent applications.

Amendment of the specification to recite the date of deposit and the complete name and address of the depository is required. As an additional means for completing the record, applicant may submit a copy of the contract with the depository for deposit and maintenance of each deposit.

If the original deposit is made after the effective filing date of an application for patent, the applicant should promptly submit a verified statement from a person in a position to corroborate the fact, and should state, that the biological material which is deposited is a biological material specifically identified in the application as filed, except if the person is an attorney or agent registered to practice before the Office, in which the case the statement need not be verified. See MPEP 1.804(b).

Affidavits and declarations, such as those under 37 C.F.R. § 1.131 and 37 C.F.R. § 1.132, filed during prosecution of the parent application do not automatically become a part of this application. Where it is desired to rely on an earlier filed affidavit, the applicant should make the remarks of record in the later application and include a copy of the original affidavit filed in the parent application.

Given the disclosure and the claims encompassing the instant cA2 antibody set forth in U.S. Patent No. 5,919,452; the conditions for the deposit of biological materials under 35 USC 112, first paragraph, with respect to cA2 appear to have been satisfied.

However, applicant is required to make the record clear exactly what is the scope of the instantly claimed cA2 and whether applicant has satisfied the deposit requirements under 35 USC 112, first paragraph, for the claimed cA2 antibody.

If applicant is relying upon sequence information to satisfy the deposit of biological materials, i is noted that the sequence of an entire immunoglobulin satisfies the biological deposit of said immunoglobulin. Note that satisfaction for the biological deposit of the specific cA2 antibody requires the disclosure and recitation of its entire amino acid sequence and not based upon partial sequences

8. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the "TNF-α specificity"; does not reasonably provide enablement for any "TNF specificity" having such specificities.

The specification does not enable any person skilled in the art to which it pertains, or with which it is most clearly connected, to make and use the invention commensurate in scope with these claims.

The specification does not describe nor enable any "TNF" molecule" other than "TNFα" as the appropriate specificity of the claimed methods, including the claimed cA2 specificity. For example, the cA2 antibody binds TNF-α, not TNF-β.

The scope of the claims must bear a reasonable correlation with the scope of enablement. See In re Fisher, 166 USPQ 18 24 (CCPA 1970).

Without such guidance, targeting TNF molecules other than TNF-α in order to treat cachexia associated with cancer would be unpredictable and the experimentation left to those skilled in the art is unnecessarily, and improperly, extensive and undue.

9. Claims 1, 3-5 and 11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 3-5 and 11 are indefinite in the recitation of "cA2" because its characteristics are not known. The use of "cA2" monoclonal antibody as the sole means of identifying the claimed antibody renders the claim indefinite because "cA2" is merely a laboratory designation which does not clearly define the claimed product, since different laboratories may use the same laboratory designation s to define completely distinct hybridomas / cell lines.

Applicant is invited to clarify the metes and bounds of the claimed cA2 antibody.

Applicant is reminded that the amendment must point to a basis in the specification so as not to add any new matter. See MPEP 714.02 and 2163.06

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office Action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 2 and 6-11 are rejected under 35 U.S.C. § 102(b) as being anticipated Le et al. (WO 92/16553) (1449; #AN4) (see entire document).

Le et al. teach treating cachexia associated with cancer in humans (e.g. see page 3, paragraph 1; page 8, paragraph 3; pages 13-15, page 20, page 22, page 34) by administering the recombinant cA2 antibody (e.g. see pages 9-11; page 13, paragraph 1 and Examples on pages 45- 74) of the instant invention (see entire document, including Description of the Prior art, Summary of the Invention, Detailed Description of the Preferred Embodiments and Claims). In addition, Le et al. teach the determination of amino acid sequences of cA2-specific epitopes via Geysen epitope mapping (See Examples XIII – XIV on pages 62 – 70). Given the teaching of antibodies that bind the epitope that are recognized by the cA2 anti-TNF antibody as well as the cA2 antibody itself, the prior art teaches antibodies that bind the identical epitope of the cA2 antibody. Given the prior art teachings drawn to the same chimeric cA2 antibodies and/or the same cA2 starting materials, the specific antibody regions comprising SEQ ID NOS: 2, 3,4 and/or 5 would be inherent properties of said recombiant cA2 antibodies.

12. The non-statutory double patenting rejection, whether of the obvious-type or non-obvious-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornam*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321 (b) and (c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78 (d).

Effective January 1, 1994, a registered attorney or agent of record may sign a Terminal Disclaimer. A Terminal Disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

13. It is noted that applicant has a number of copending applications drawn to methods of treating various diseases and conditions with the same cA2 TNF-specific antibodies.

Again, given the history of a number of continuations-in-part, it is not readily apparent whether the claims were subject to restriction and whether the claims are subject to double patenting rejections.

Applicant is invited to clarify which applications should be subject to rejections under the judicially created doctrine of obviousness-type double patenting.

14. Claims 1-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of copending USSN 10/957,134 and claims 1-70 of copending USSN 10/957,549. Although the conflicting claims are not identical, they are not patentably distinct from each other because it appears that the same or nearly the same cancer patients are being targeted with the same or nearly the same cA2 TNF-specific antibodies. While the instant claims are drawn to treating cachexia associated with cancer, it appears that the instant claims anticipate or render obvious treating the same or nearly the same cancer patients of the copending applications. Further, the additional dosing and therapeutic regimens recited in the copending claims appear to be standard therapeutic regimens for cancer patients at the time the invention was made. The disclosure of all of these pending applications acknowledge that the extensive wasting associated with cancer known as cachexia is a TNF-mediated disease.

This is a *provisional* obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

15. Claims 1-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. Patent No. 5,919,452 in view of the acknowledgement that cachexia associated with cancer is TNF-mediated disease other than a disease resulting from infection as acknowledged on page 3, paragraph 1 of the instant specification. The instant claims anticipate the patented claims. When the patented claims are read in light of the instant specification (page 3) and the patent specification columns 1-2, overlapping paragraph), applicant appears to acknowledge that the extensive wasting associated with cancer know as cachexia is a TNF-mediated disease encompassed by the patented method claims.

16. No claim is allowed.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Gambel whose telephone number is (571) 272-0844. The examiner can normally be reached Monday through Thursday from 7:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841.

The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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February 4, 2005